What is claimed is:

[Claim 1] 1. A single-component, yellow-emitting electroluminescent having an emission having an x color coordinate from 0.420 and 0.500 and y color coordinate from 0.420 and 0.460 when stimulated by an electric field.

[Claim 2] 2. The phosphor of claim 1 wherein the emission has an x color coordinate of between 0.450 and 0.500 and a y color coordinate from 0.440 to 0.460.

[Claim 3] 3. The phosphor of claim 1 wherein the phosphor has a composition represented by ZnS:Cu,Cl,Mn.

[Claim 4] 4. The phosphor of claim 3 wherein the phosphor additionally contains a metal selected from gold and antimony.

[Claim 5] 5. A method of making a single-component, yellow-emitting electroluminescent phosphor comprising:

(a) blending an amount of zinc sulfide with amounts of a source of copper, zinc oxide, sulfur, a chloride-containing flux, and, optionally, a source of a metal selected from gold and antimony;

(b) in a first firing step, firing the blended mixture in air at a temperature from about 1100°C to about 1250 °C for about 2 to about 5 hours to form a fired material;

(c) washing the fired material and then mechanically working the fired material to induce defects in the crystal structure;

(d) blending the fired material with amounts of a copper source, a manganese source, and zinc oxide to form an intermediate mixture; and

(e) in a second firing step, firing the intermediate mixture in air at a temperature from about 750°C to about 950 °C for about 2 to about 5 hours to form the phosphor.

[Claim 6] 6. The method of claim 5 wherein the blended mixture contains in weight percent (wt.%) relative to the weight of ZnS: 0 to 0.018 wt.% Au, 0.06 to 0.12 wt.% Cu, 0 to 0.01 wt.% Sb, 0.3 to 0.7 wt.% ZnO, 6 to 12 wt.% sulfur, and 4 to 14 wt.% chloride-containing flux.

[Claim 7] 7. The method of claim 6 wherein the intermediate mixture contains 0.2 to 0.8 wt.% anhydrous copper sulfate ($CuSO_4$), 1 to 6.5 wt.% manganese carbonate ($MnCO_3$), and 5 to 15 wt.% zinc oxide (ZnO) based on the weight of the fired material from the first firing step.

[Claim 8] 8. An electroluminescent lamp including a single-component, yellow-emitting electroluminescent phosphor, the lamp having an emission having x color coordinate from 0.420 and 0.500 and y color coordinate from 0.420 and 0.460 when operated.

[Claim 9] 9. The lamp of claim 8 wherein the lamp has an initial brightness of at least about 6 foot-Lamberts (ft-L) when operated in a 50% relative humidity (R.H.) and 70°F environment.

[Claim 10] 10. The lamp of claim 8 wherein the lamp has an initial brightness of at least about 8 ft-L when operated at 100V and 400 Hz in a 50% relative humidity (R.H.) and 70°F environment.

[Claim 11] 11. The lamp of claim 9 wherein the lamp exhibits a half-life of at least about 1000 hours.

[Claim 12] 12. The lamp of claim 9 wherein the lamp exhibits a half-life at least about 1500.